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For the observations of *Thetis*, a new eye-piece of higher power was used, which gives a larger and much flatter field, the bars of the micrometer being broader than were those in the old eye-piece. By taking the time from a half seconds sidereal chronometer, the observations were left to depend alone upon my own eye and ear.

LIVERPOOL. Equatoreal. (Mr. Hartnup.)

1852.	Green. M.T. h m s	R.A. h m s	Log $\frac{p}{P}$	N.P.D. ° ′ ″	Log $\frac{q}{P}$	Star of Comp.
May 6	9 48 1·4	11 55 39·41	+7·845	80 54 51·0	−9·8429	B.A.C. 3982
	10 47 53·3	39·03	+8·232	55·8	−9·8474	— —

Assumed *Mean* Place of the Star for 1852·0.

	R.A. h m s	N.P.D. ° ′ ″	Authority.
B.A.C. 3982	11 38 15·14	82 38 29·7	Greenwich Observations.

PSYCHE.

MARKREE. Large Equatoreal and Square Micrometer. {E. J. Cooper, Esq., and Mr. Graham.

	Green. M.T. 1852.	R.A. h m s		Decl. ° ′ ″			
April	12·474149	9 50 8·62	+[9·3211] : Δ	+13 47 19·9	+[0·7609] : Δ	a	10
	·506741	8·88	9·4167	24·2	0·7734	a	10
	13·404241	50 7·58	8·8475	47 42·9	0·7439	a_1	10
	17·398385	50 15·90	8·9081	49 3·2	0·7443	a_2	14
	24·377393	9 51 16·99	9·0940	13 46 36·6	0·7483	a_3	5
	·386856	16·77	9·1557	39·1	0·7505	a_3	2
May	22·464501	10 4 40·84	9·5043	+12 47 10·4	0·8018	b	5
	·475595	40·79	+[9·5152] : Δ	8·9	+[0·8068] : Δ	b	5

Coefficients for parallax logarithmic. Δ = distance from the earth.

Adopted *Mean* Places for 1852·0, of Compared Stars, with reductions to apparent places at the times of observation, and authorities.

	h m s	s	° ′ ″	″	
Markree Mer. Cir. 5 obs.	9 49 11·09	+0·43	+13 51 32·80	−2·95	a
		0·42		2·88	a_1
		0·37		2·61	a_2
		0·28		2·18	a_3
Weisse, 45	10 3 40·09	+0·00	+12 45 51·88	−0·71	b

M. Rümker's determination of a is,

A.S.N. XII, 161 $9^h 49^m 10^s·87$ $+13° 51′ 33″$.

April 13. Blowing hard. I fear the observation is worth nothing.
April 24. Occasional gusts of wind may have affected the observation.
May 14. Carefully observed what unfortunately was not the planet.

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WESTPHAL'S COMET. II. 1852.

On the 24th of July, Dr. Westphal, of the Observatory of Göttingen, discovered a small comet about 1°¾ south of *f Piscium*. In the comet-seeker the comet seemed to be above 1′ in extent, and it was pretty bright. The position was estimated as follows:—

1852.	Göttingen M.T.	R.A.	Decl.
	h m s	h m	° ′
July 24	12 0 0	1 11·7	+1 4

On the following night the comet was compared by M. Klinkerfues with Weisse i, 197; Dr. Westphal also estimated its position.

1852.	Göttingen M.T.	R.A.	Decl.	
	h m s	h m s	° ′	
July 25	13 55 20	1 12 59·4	+1 44	Comparison
	13 45 0	1 13·1	+1 47	Estimation

ALTONA. (Dr. Petersen and M. Sonntag.)

1852.	Altona M.T.	R.A.	Decl.
	h m s	h m s	° ′ ″
July 27	14 10 30	1 15 29·12	+3 4 11·7
28	13 38 42	16 37·39	3 44 28·6
Aug. 10	12 55 50·1	31 30·17	14 27 5·4
12	13 18 32·4	1 33 45·58	+16 28 23·4

LIVERPOOL. Equatoreal. (Mr. Hartnup.)

1852.	Green. M.T.	R.A.	$\log \frac{p}{P}$	N.P.D.	$\log \frac{q}{P}$	Star of Comparison.
	h m s	h m s		° ′ ″		
Aug. 25	12 35 21·3	1 48 8·81	−8·535	57 44 25·5	−9·6605	B.A.C. 656
	13 5 18·0	10·13	8·474	42 37·6	9·6322	— -
Sept. 1	10 56 52·6	1 56 2·76	8·695	47 28 38·2	9·6313	— 676
	11 16 48·3	3·57	8·677	27 17·4	9·5977	— -
2	11 10 5·9	1 57 14·50	8·692	45 54 9·6	9·5822	— 706
	11 35 3·5	15·80	8·664	52 31·8	9·5350	— -
9	12 33 11·6	2 6 9·15	8·625	34 37 24·7	8·7902	— 721
	12 49 9·8	9·85	8·582	36 23·6	8·6201	— -
	13 5 8·4	10·49	8·532	35 17·7	8·3781	— -
17	7 54 50·9	2 18 44·78	−9·010	22 23 27·3	−9·6225	— 802

Assumed *Mean* Places of the Stars for 1852·0.

		R.A.	N.P.D.	Authority.
		h m s	° ′ ″	
B.A.C.	656	2 0 45·00	55 42 54·8	Greenwich Observations.
—	676	2 3 57·74	46 27 56·9	B.A.C.
—	706	2 9 45·33	43 18 21·8	Greenwich Observations.
—	721	2 12 4·43	34 50 5·9	Greenwich 12-yr. Catalogue.
—	802	2 29 43·91	22 34 30·2	Oxford Observations.

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HAMBURG. (M. C. Rümker.)

1852.	Hamburg M.T.	R.A.	L. Fact. Parx.	Decl.	L. Fact. Parx.	Comps.
	h m s	° ′ ″		° ′ ″		
July 27	13 38 26·0	18 51 50·9		+3 3 33·5		
Aug. 10	11 6 31·6	22 51 8·0		14 22 45·0		
12	11 21 53·9	23 25 2·4		16 23 36·1		
Sept. 2	10 20 25·5	29 17 8·2	−9·8968	43 59 50·8	+9·6527	6
3	10 33 39·7	29 35 31·2	9·8981	45 35 26·5	9·6040	6
5	10 21 50·0	30 12 1·5	9·9287	48 45 21·0	9·5713	12
6	10 17 14·8	30 30 47·6	9·9360	50 21 54·3	9·5239	6
7	10 16 53·6	30 49 58·0	9·9578	51 57 30·3	9·5182	8
8	10 18 16·8	31 9 34·1	9·9709	53 34 5·2	9·4772	11
9	9 45 39·1	31 29 10·0	0·0059	55 8 35·8	9·5315	4
14	11 20 28·7	33 22 38·3	0·0008	63 11 26·6	8·0575	3
16	10 33 21·8	34 14 42·5	0·1075	66 13 25·1	8·6972	6
17	10 3 17·0	34 42 15·8	0·1606	67 42 12·6	8·9449	5
22	8 37 3·9	37 46 57·0	0·3571	74 48 43·1	9·2480	6
23	8 47 2·9	38 38 27·0	0·3955	76 10 45·4	+9·1194	1
25	9 26 46·4	40 46 28·5	0·4723	78 50 6·0	−7·5028	5
Oct. 3	12 37 45·5	82 54 28·0	−1·1003	87 37 40·6	−9·4140	1
16	11 52 48·7	203 36 21·5	+7·3512	80 11 46·1	+9·8601	4

Apparent Places of the Stars of Comparison.

1852.	R.A.	Decl.	1852.	R.A.	Decl.
	h m s	° ′ ″		h m s	° ′ ″
Sept. 2	1 57 56·72	+44 3 16·9	Sept. 9	2 10 29·67	+55 13 27·5
3	2 1 51·83	45 30 43·7		10 39·02	8 27·8
	2 3·84	31 56·4		12 7·33	9 51·7
5	2 2 16·67	48 45 7·9	14	2 9 25·14	63 11 19·1
	2 22·49	53 52·7	16	2 11 8·95	66 9 45·0
	3 31·65	41 7·4		14 39·44	65 52 24·5
6	2 1 1·28	50 21 8·9	17	2 23 14·25	67 42 48·5
	3 49·76	22 31·2	22	2 31 17·81	74 46 28·1
7	2 5 39·46	51 49 4·0	23	2 42 0·40	76 28 25·5
	6 30·66	51 52 3·6	25	2 46 47·53	78 49 30·4
	6 46·13	52 1 49·1	Oct 3	6 29 49·48	87 14 56·2
8	2 3 16·26	+53 51 15·5	16	13 36 34·03	+80 6 10·2

Elements. By M. George Rümker.

T	1852, Oct. 9·51695, Berlin M.T.	
	° ′ ″	
π	40 21 57	App. Equinox, July 29
☊	346 44 22	
i	41 2 50	
Log *q*	0·111004	Motion direct.

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These elements are computed from Hamburg observations of July 27 and the Berlin observations of July 29 and August 7.*

Computed—Observed = +29″ in Long.; −2″ in Latitude.

The elements have some likeness to those of the comet of 1793.

COMET OF CHACORNAC. I. 1852.

By Mr. G. P. Bond, Cambridge, U.S.

Mr. Bond *discovered* this comet on the morning of May 19th, and remarks that it was a faint insignificant object.

1852.	Camb. M.T. h m s	R.A. 1852·0. h m s	Decl. 1852·0. ° ′ ″
May 18	13 5 45	22 28 55·51	+74 35 53·2
19	9 36 9	26 12·47	76 53 15·2
20	9 37 18	21 38·85	79 31 47·8
21	11 14 37	22 13 30·74	+82 17 12·7

BIELA'S COMET.

On August 25, Professer Secchi discovered a small comet in the constellation *Gemini*; at $15\frac{1}{2}^{h}$ M.T. the comet preceded a small star of 9.10 mag. about 4^{s}, and at $15^{h}\ 52^{m}$ it exactly covered the star.

By comparisons with Lalande 14637, Professor Secchi found the following approximate place of the small star, viz.

R.A. ✻ = Lalande 14637 + $5^{m}\ 43^{s}{\cdot}6$, Decl. ✻ = Lalande 14637 + 5′ 20″
= $7^{h}\ 29^{m}\ 31^{s}{\cdot}4$ = +21° 48′ 37″ approximated.

The comet was subsequently compared with the star: the results are,

1852.	Rome M.T. h m	R.A.	Decl.
August 25	15 52	✻	✻
	16 14·5	✻ + $3^{s}{\cdot}85$	✻ − 42″

This comet was suspected by Professor Secchi to be one of the parts of Biela's Comet, although the place differed considerably from that assigned by Professor Santini.

On Sept. 15 Professor Secchi discovered the other portion of Biela's Comet. It was very faint, without nucleus, and of a long oval shape, the point being turned to the sun. It followed the former portion in about 2^{m}, and was about half a degree to the

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* An approximate ephemeris computed from the above elements between August 12 and September 21 was forwarded at the same time by M. George Rümker. This and another ephemeris by M. Sonntag are published in the *Astronomische Nachrichten*. It is now supposed to have a period somewhat less than 70 years.

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south of it. The faintness of this latter portion, and the fear of missing the observations of the former portion, did not allow the Professor to make a more satisfactory estimate of the relative positions.

The larger and brighter portion had not the same shape as when seen on August 25: it was altogether irregular and with two very feeble brushes. The centre was more luminous than the edges, but there was no nucleus. The comet was compared with a star of the 10th mag. which was again compared with ζ *Leonis.*

R.A. ✱ = R.A. ζ Leonis $-7^{m}\,7^{s}\cdot2$, Decl. ✱ = Decl. ζ Leonis $-16''$.

The observation of the comet is as follows:—

1852.	Rome M.T. h m s	R.A. s	Decl. ″
Sept. 15	16 13 58·4	✱ −19·2	✱ −53·2

On Sept. 19 the two portions of the comet were compared with Lalande 19134.

1852.	Rome M.T. h m s		R.A. m s	Decl. ′ ″
Sept. 19	16 3 54·36	Preceding Comet	✱ −1 34·9	✱ +10 2·3
	16 12 29·16	Following Comet	✱ +0 17·42	✱ − 4 8·2

The preceding portion being the fainter.

On Sept. 21 the comets were compared with a star of the 7th mag. which is found in Harding's charts, R.A. $9^{h}\,38^{m}$, Decl. $+9^{\circ}\,26''$, and is underlined.

	Rome Sid. T. h m s		R.A. s	Decl. s
Sept. 20	4 12 31·1	Preceding Comet	✱ −25·03	✱ $+44{\cdot}76 \times 15 \,.\, \cos\delta$
	4 26 0·2	Following Comet	✱ +87·52	✱ $-12{\cdot}12 \times 15 \,.\, \cos\delta$

A portion of the comet was observed by Professor Encke.

1852.	Berlin M.T. h m s	R.A. ° ′ ″	Decl. ° ′ ″
Sept. 17	15 45 16·7	141 32 4·9	+10 50 55·8

ENCKE'S COMET.

Markree. Large Equatoreal and Square Micrometer. { E. J. Cooper, Esq., and Mr. Graham.

	Green. M.T. 1852.	R.A. h m s	Decl. ° ′ ″	Comp^d Stars.	No. of Obs.
Jan.	17·304752	23 11 17·87	+4 31 24·4	*a*	10
	·304752	16·95	25·8	*b*	
	·304752	17·79	27·9	*c*	
	20·296745	23 15 11·82	4 50 14·4	*d*	10
	23·294799	23 19 19·54	5 10 25·6	*e*	10
	·294799	19·39	30·1	*f*	
	·294799	19·20	27·8	*g*	
	·294799	19·28	24·1	*h*	